

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1. (currently amended) A layer 2 switch which conducts processing of terminating a layer 2 frame and processing of a layer 2 frame in which an expansion VLAN tag is stacked, comprising:

a unit which, when a transmission destination area of said frame is different from a transmission source area, rewrites said expansion VLAN tag of said frame into an expansion VLAN tag of the transmission destination area, and

a first table which stores header information of said frame and information indicates from which area said frame is received so as to correspond with each other, wherein

said table includes a second table which stores information of said expansion VLAN tags of said transmission source area and said transmission destination area so as to correspond with each other.

2-3. (cancelled)

4. (currently amended) The layer 2 switch as set forth in claim 1, ~~comprising:~~

~~a first table which stores header information of said frame and information indicates from which area said frame is received so as to correspond with each other,~~

~~said table including a second table which stores information of said expansion VLAN tags of said transmission source area and said transmission destination area so as to correspond with each other, wherein,~~

said first table is searched based on the header information of said frame and when the transmission destination area of said frame is different from the transmission source area, the expansion VLAN tag of the transmission destination area is obtained from said second table to rewrite the expansion VLAN tag of said frame.

5. (original) The layer 2 switch as set forth in claim 1, wherein

said layer 2 frame is an Ethernet frame.

6. (currently amended) The layer 2 switch as set forth in claim 1, wherein,

when a plurality of said expansion VLAN tags are applied to said layer 2 frame, one of i) an expansion VLAN tag at the top [[or]] is rewritten by said expansion VLAN tag of said transmission destination area, and ii) all the expansion VLAN tags are rewritten by said expansion VLAN tag of said

transmission destination area.

7. (currently amended) The layer 2 switch as set forth in claim [[3]] 1, wherein

information of said expansion VLAN tags of said transmission source area and said transmission destination area so as to one-to-one correspond with each other is stored in said second table.

8. (original) The layer 2 switch as set forth in claim 1, comprising

a unit for one-to-one connecting LANs which handle said layer 2 frame to enable communication between LANs having the layer 2 frames whose kinds are different.

9. (currently amended) The layer 2 switch as set forth in claim 8, wherein

information of said expansion VLAN tags of said transmission source area and said transmission destination area so as to one-to-one correspond with each other is stored in ~~said~~ second a table.

10. (original) The layer 2 switch as set forth in claim 1, comprising

a unit for one-to-N connecting LANs which handle said

layer 2 frame to enable communication between LANs having said layer 2 frames whose kinds are different.

11. (original) The layer 2 switch as set forth in claim 10, wherein

information of said expansion VLAN tags of said transmission source area and said transmission destination area so as to one-to-N correspond with each other is stored in said second table.

12. (original) The layer 2 switch as set forth in claim 1, comprising

a unit for N-to-N connecting LANs which handle said layer 2 frame to enable communication between LANs having said layer 2 frames whose kinds are different.

13. (original) The layer 2 switch as set forth in claim 12, wherein

information of said expansion VLAN tags of said transmission source area and said transmission destination area so as to N-to-N correspond with each other is stored in said second table.

14. (currently amended) A method of termination processing of a layer 2 frame and of processing an expansion VLAN

tag of a layer 2 frame in which an expansion VLAN tag is stacked, comprising the step of

rewriting, when a transmission destination area of said frame is different from a transmission source area, said expansion VLAN tag of said frame into an expansion VLAN tag of the transmission destination area wherein,

a first table which stores header information of said frame and information indicates from which area said frame is received so as to correspond with each other,

said table including a second table which stores information of said expansion VLAN tags of said transmission source area and said transmission destination area so as to correspond with each other, and

said first table is searched based on the header information of said frame and when the transmission destination area of said frame is different from the transmission source area, the expansion VLAN tag of the transmission destination area is obtained from said second table to rewrite the expansion VLAN tag of said frame.

15. (cancelled)

16. (original) The method of processing an expansion VLAN tag of a layer 2 frame as set forth in claim 14, wherein said layer 2 frame is an Ethernet frame.

17. (currently amended) The method of processing an expansion VLAN tag of a layer 2 frame as set forth in claim 14, wherein,

when a plurality of said expansion VLAN tags are applied to said layer 2 frame, one of i) an expansion VLAN tag at the top [[or]] is rewritten by said expansion VLAN tag of said transmission destination area and ii) all the expansion VLAN tags are rewritten by said expansion VLAN tag of said transmission destination area.

18. (currently amended) The method of processing an expansion VLAN tag of a layer 2 frame as set forth in claim [[15]] 14, wherein

storing information of said expansion VLAN tags of said transmission source area and said transmission destination area so as to one-to-one correspond with each other in said second table.

19. (original) The method of processing an expansion VLAN tag of a layer 2 frame as set forth in claim 14, comprising  
a unit for one-to-one connecting LANs which handle said layer 2 frame to enable communication between LANs having the layer 2 frames whose kinds are different.

20. (currently amended) The method of processing an expansion VLAN tag of a layer 2 frame as set forth in claim 19, wherein

storing information of said expansion VLAN tags of said transmission source area and said transmission destination area so as to one-to-one correspond with each other in ~~said second~~ a table.

21. (original) The method of processing an expansion VLAN tag of a layer 2 frame as set forth in claim 14, comprising  
a unit for one-to-N connecting LANs which handle said layer 2 frame to enable communication between LANs having said layer 2 frames whose kinds are different.

22. (original) The method of processing an expansion VLAN tag of a layer 2 frame as set forth in claim 21, wherein  
storing information of said expansion VLAN tags of said transmission source area and said transmission destination area so as to one-to-N correspond with each other in said second table.

23. (original) The method of processing an expansion VLAN tag of a layer 2 frame as set forth in claim 14, comprising  
a unit for N-to-N connecting LANs which handle said layer 2 frame to enable communication between LANs having said

layer 2 frames whose kinds are different.

24. (original) The method of processing an expansion VLAN tag of a layer 2 frame as set forth in claim 23, wherein storing information of said expansion VLAN tags of said transmission source area and said transmission destination area so as to N-to-N correspond with each other in said second table.

25. (cancelled)